



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,138	08/04/2005	Jan Bruckner	2002P09896WOUS	4517
7590 Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830				
			EXAMINER SUNG, GERALD LUTHER	
			ART UNIT 4156	PAPER NUMBER
			MAIL DATE 01/10/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,138

Applicant(s)

BRUCKNER ET AL.

Examiner

GERALD L. SUNG

Art Unit

4156

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/04/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 12/22/2004.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations "in order to heat up and keep hot" in claim 16 and "in order to heat up or keep hot" in claim 17 fail to specify what is being heated or kept hot. In consideration of figures 1 and 2, the examiner will interpret these limitations to mean the reheating of steam via a feed back loop.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

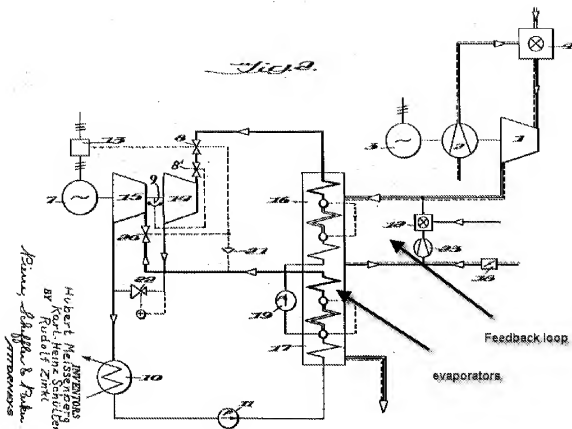
2. Claims 9-10 and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Meissenberg et al. USPN 3,204,407.
3. Regarding claims 9-10, Meissenberg et al. disclose a waste heat boiler 5 for steam generation for a combined gas turbine and steam turbine power plant. Referring to figure 2 below, the waste heat steam boiler includes a plurality of evaporators (refer to figure 2), a burner 12 to supply flue gas to the boiler, such that the burner is connected in a feedback loop creating a circulation circuit.

4. Regarding claim 15, referring to figure 2 below, a portion of the steam flow can be extracted and used to drive either a high pressure steam turbine or a low pressure steam turbine in that the system has such an ability lacking any clear distinguishing features.

5. Regarding claims 16 and 17, as best understood, Meissenberg et al. disclose a burner 12 that provides for the reheating of flue gas capable of maintaining the temperature of the steam in the boiler and/or heating the steam in the boiler.

6. Regarding claims 18 and 19, referring to figure 2 below, Meissenberg et al. disclose a portion of auxiliary steam can be extracted from the evaporator and pumped via 19 in order to pump feed water into the high pressure circuit and maintain pressure in the boiler. Furthermore, fresh steam from the steam turbines can be extracted via condenser 10 and condensate pump 11 and sent back to the evaporators.

7. Regarding claims 20 and 21, referring to figure 2 below, Meisseberg et al. disclose a burner 12 capable of supplying heated flue gas to boiler thereby providing the ability to generate steam largely independent of the operating state of the gas and/or steam turbines.



Claim Rejections - 35 USC § 102/103

8. Claims 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Meissenberg et al. USPN 3,204,407.
9. Regarding claims 11-12, the limitations "flue gas can be extracted from the waste heat boiler upstream of the evaporators and in the direction of the flue gas" and "flue gas can be extracted from the waste heat boiler in the flow direction of the flue gas and downstream from its outlet openings" are encompassed by Meissenberg et al. since the reference has the ability to perform the claimed functions by tapping an upstream flue gas line or a flue gas line downstream from its outlet opening in the flue gas flow direction. Therefore, Meissenberg et al. disclose all elements.

10. Should Meissenberg et al. be later deemed not to meet claims 11-12 because Meissenberg et al. do not disclose that flue gas can be extracted from the waste heat boiler upstream of the evaporators or in the flow direction, downstream from its outlets, it would have been obvious to one of ordinary skill in the art at the time of the invention that flue gas can be extracted at any point in the flow, because Meissenberg et al. disclose a feedback loop at a specified point in the boiler where flue gas is heated and feedback into the boiler. The points of extraction of flue gas can be changed to meet the operating requirements of the gas turbine.

11. Regarding claims 13-14, Meissenberg et al. disclose that "the combustion load of the auxiliary burner can be arranged for a constant value... [or] be adjustable so that the ratio of base-load to maximum peak-load... can be altered by the burner-setting and caused to suit the prevailing circumstances" (column 4 lines 7-14). Meissenberg et al. disclose that combustion air can be drawn from either fresh air from the environment via line 18 or gas turbine exhaust-gas from the waste heat boiler. In changing the combustion load of the auxiliary burner to meet prevailing circumstances, temperature as well as flue gas flow rate in the feedback loop will be changed. However if at a later time, Meissenber et al. is deemed not to meet claims 13-14, because Meissenberg et al. do not disclose a direct temperature/flue gas flow rate control device, it would have been obvious to one of ordinary skill in the art at the time of the invention to control the temperature within the burner by inclusion of a flue gas flow rate control device in order to keep the entire power plant operating at maximum efficiency.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissenberg et al. USPN 3,204,407 in view of Linhardt USPN 4,831,817.

15. Regarding claims 13-14, Meissenberg et al. disclose all elements except for a direct temperature and/or flue gas flow rate control device. Linhardt teaches the use of a system controller to vent hot gases to the atmosphere and the recuperator to control the speed of the gas turbine (column 3 lines 35-43). One of ordinary skill in the art at the time of the invention would have found it obvious to include a system controller, such as the one found in Linhardt, in order to control the temperature and flue gas flow rate into the boiler so as to avoid any potential damages as well as to maximize efficiency of the power plant at all conditions of operation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERALD L. SUNG whose telephone number is (571)270-3765. The examiner can normally be reached on M-F 9am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Isabella can be reached on (571) 272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DMITRY SUHOL/
Primary Examiner, Art Unit 3725

Gerald Sung
Patent Examiner
GS
1/8/2007